

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MARK A. CAMPBELL,  
PHUONG-ANH TANG, and GARY R. ANDERSON

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Appeal 2006-3028  
Application 09/366,441  
Technology Center 1700

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Decided: September 27, 2006

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Before PAK, WARREN, and GAUDETTE, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the decision of the Examiner finally rejecting claims 1 through 15, all of the claims in the application. In the Answer, the Examiner held claims 7 through 15 to

encompass allowable subject matter and objected to these claims as being dependent on a rejected base claim (Supplemental Answer<sup>1</sup> 2 and 5).

Claim 1 illustrates Appellants' invention of a monitoring system and is representative of the claims on appeal:

1. A monitoring system, comprising:
  - a first chemical vessel containing a first chemical mixture;
  - a second chemical vessel containing a second chemical mixture; and
  - a sensor configured to selectively receive a first sample flow of said first chemical mixture from said first chemical vessel and to selectively receive a second sample flow of said second chemical mixture from said second chemical vessel, wherein said sensor is configured to measure a first sample attribute of said first sample and a second sample attribute of said second sample.

The references relied on by the Examiner are:

Tawarayama	US 5,783,740	Jul. 21, 1998
Demachi	EP 0 543 544 A1	May 26, 1993

The Examiner has rejected appealed claims 1 through 6 under 35 U.S.C. § 102(b) as anticipated by Tawarayama and claims 1 through 5 under the same statutory provision as anticipated by Demachi (Supplemental Answer 4-5).

Appellants argue claims 1 through 5 as a group and separately claim 6 with respect to the first ground of rejection and argue claims 1 through 5 as a group with respect to the second ground of rejection (Brief 4, 6, and 8). Thus, we decide this appeal based on appealed claims 1 and 6 as representative of the grounds of rejection and Appellants' groupings of

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<sup>1</sup> We consider the Supplemental Answer mailed July 21, 2005, in response to the Reply Brief filed April 25, 2005, which incorporates the Answer mailed February 22, 2005 (Supplemental Answer 2).

claims and arguments with respect to the grounds of rejection. 37 C.F.R. § 41.37(c)(1)(vii) (September 2004).

We affirm the ground of rejection based on Tawarayama with respect to claims 1 through 5 and reverse this ground with respect to claim 6. We reverse the ground of rejection based on Demachi. Accordingly, the Examiner's decision is affirmed-in-part.

We refer to the Supplemental Answer and to the Brief, Reply Brief and Substitute Reply Brief for a complete exposition of the positions advanced by the Examiner and Appellants.

#### OPINION

It is well settled that in order for the examiner to establish a prima facie case of anticipation, each and every element of the claimed invention, arranged as required by the claim, must be found in a single prior art reference, either expressly or under the principles of inherency. *See generally, In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997); *In re Spada*, 911 F.2d 705, 707, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677-78, 7 USPQ 1315, 1317 (Fed. Cir. 1988); *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Whether the teachings and inferences that one skilled in this art would have found in the disclosure of an applied reference would have placed this person in possession of the claimed invention, taking into account this person's own knowledge of the particular art, is a question of fact. *See generally, In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), and cases cited therein (a reference

anticipates the claimed method if the step that is not disclosed therein “is within the knowledge of the skilled artisan.”); *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968) (“[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.”).

The dispositive issue with respect to the rejection of appealed claim 1 over Tawarayama is whether the reference describes a monitoring system having “a sensor configured to selectively receive” samples of two different “chemical mixtures” from their respective “vessels.” We initially determine that one of ordinary skill in this art would have recognized from the written description in the specification that the “sensor” can be part of a larger subsystem in which the respective samples are transported to the sensor through a single line via a distribution system (specification e.g., 33:12-24, and **FIG. 2**). We further determine that the term “vessel” would have the broadest reasonable interpretation in the context of the claim language and the written description in the specification to one of ordinary skill in this art of any container, regardless of shape, which can hold a chemical sample. *See, e.g., In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

We find substantial evidence in Tawarayama supporting the Examiner’s position. Appellants’ arguments with respect to Tawarayama (e.g., Reply Br. 3-4) overlook the teachings that each set of loops of the pair

of sample loops **401,403** in **FIG. 1** and the pair of sample loops **410,412** in **FIG. 2** can respectively contain samples of high and low concentration prepared from a single sample in the introduction and pretreatment units, and the sample in each set of loops can be sampled via the valve for that set of loops and transported through the same flow passage to a single sensor (Tawarayama col. 3, ll. 25-41, col. 5, ll. 22-27, col. 6, l. 66, to col. 7, l. 15, col. 7, ll. 25-34, and **FIGs. 1** and **2**). In this respect, we find that one skilled in this art would consider mixtures of different concentrations of the same ingredients to constitute different chemical mixtures. We find no basis in the context of the claim language or the written description in the specification to otherwise interpret the claim term “chemical mixture.” In this respect, while the different mixtures thus analyzed by the system of the reference were derived from a single source as Appellants point out (*id.*), we find no claim limitation(s) specifying the derivation of the first and second chemical mixtures in claim 1.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of anticipation found in Tawarayama with Appellants’ countervailing evidence of and argument for non-anticipation and conclude that the claimed invention encompassed by appealed claims 1 through 5 would have been anticipated as a matter of fact under 35 U.S.C. § 102(b).

We cannot reach the same decision with respect to appealed claim 6. This claim, dependent on claim 1, specifically requires the further component “a return distribution system . . . configured to transport purge fluids from said sensor to said drain, and . . . to selectively transport” each

sample “from said sensor to” the chemical vessel for that sample “or to said drain.” Thus, the claimed monitoring system must have the capability to selectively transport a sample from the sensor to its vessel as well as to a drain contrary to the Examiner’s position that the claim encompasses systems which have either one capability or the other (Supplemental Answer 7-8; see Supplemental Reply Br. 2-3). The Examiner does not dispute Appellants’ position (Br. 6) that Tawarayama does not describe a system which satisfies this limitation of appealed claim 6.

Accordingly, in the absence of a prima facie case of anticipation of appealed claim 6, we reverse the rejection of this claim under 35 U.S.C. § 102(b) over Tawarayama.

Turning now to the ground of rejection over Demachi, we agree with Appellants’ position that this reference would not have described a system which included a “sensor” specified in appealed claim 1 as we have interpreted this term above (Br. 8-10; Reply Br. 5-7; Supplemental Reply Br. 4-6). In this respect, the Examiner correctly finds that one skilled in the art would have inferred from the reference that the sampling apparatus of Demachi is intended to be coupled with one or more sensors for the measurements set forth at 4:40-54. However, the Examiner has not established as a matter of fact that this person would have known of a sensor as claimed and would have used that sensor with Demachi’s sampling apparatus.

Accordingly, in the absence of a prima facie case of anticipation of appealed claims 1 through 5 we reverse the rejection of these claim under 35 U.S.C. § 102(b) over Demachi.

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The Examiner's decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2005).

AFFIRMED-IN-PART

sld

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